

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)

Application Number		10594185
Filing Date		2006-09-25
First Named Inventor	Joseph B. Schlenoff	
Art Unit		
Examiner Name		
Attorney Docket Number	FSU 70008.3	

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	3467604		1969-09-16	Michaels	
	2	4169023		1979-09-25	Sata et al.	
	3	4501835		1985-02-26	Berke	
	4	4654235		1987-03-31	Effenberger et al.	
	5	5208111		1993-05-04	Decher et al.	
	6	5711915		1998-01-27	Siegmund et al.	
	7	5807636		1998-09-15	Sheu et al.	
	8	5939323		1999-08-17	Valentini et al.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10594185
Filing Date	2006-09-25
First Named Inventor	Joseph B. Schlenoff
Art Unit	
Examiner Name	
Attorney Docket Number	FSU 70008.3

9	6402918	B1	2002-06-11	Schlenoff et al.	
10	6468657	B1	2002-10-22	Hou et al.	
11	6610789	B2	2003-08-26	Watakabe et al.	
12	6841054	B2	2005-01-11	Schlenoff et al.	
13	6860980	B2	2005-03-01	Locascio et al.	
14	7101947	B2	2006-09-05	Schlenoff et al.	

If you wish to add additional U.S. Patent citation information please click the Add button.

Add

U.S.PATENT APPLICATION PUBLICATIONS

Remove

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20030078388	A1	2003-04-24	Basey et al.	
	2	20030215626	A1	2003-11-20	Hiller et al.	
	3	20040022691	A1	2004-02-05	Allen et al.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10594185
Filing Date	2006-09-25
First Named Inventor	Joseph B. Schlenoff
Art Unit	
Examiner Name	
Attorney Docket Number	FSU 70008.3

4	20040060481	A1	2004-04-01	Schlenoff	
5	20040084312	A1	2004-05-06	Warner et al.	
6	20040149572	A1	2004-08-05	Schlenoff et al.	
7	20040265603	A1	2004-12-30	Schlenoff	
8	20050025675	A1	2005-02-03	Schlenoff et al.	
9	20050282925	A1	2005-12-22	Schlenoff et al.	
10	20060065529	A1	2006-03-30	Schlenoff et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button. [Add](#)

FOREIGN PATENT DOCUMENTS

[Remove](#)

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ² i	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button. [Add](#)

NON-PATENT LITERATURE DOCUMENTS

[Remove](#)

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10594185
Filing Date	2006-09-25
First Named Inventor	Joseph B. Schlenoff
Art Unit	
Examiner Name	
Attorney Docket Number	FSU 70008.3

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	BARKER, S. L. R., et al., "Control of Flow Direction in Microfluidic Devices with Polyelectrolyte Multilayers," Analytical Chemistry, December 15, 2000, Pages 5925-5929, Volume 72, Number 24	<input type="checkbox"/>
	2	CARUSO, F., et al., "Coated Colloids: Preparation, Characterization, Assembly and Utilization," Chapter 12, Multilayer Thin Films, 2003, Pages 331-362	<input type="checkbox"/>
	3	CHEN, W., et al., "Layer-by-Layer Deposition: A Tool for Polymer Surface Modification," Macromolecules, 1997, Pages 78-86, Volume 30, Number 1	<input type="checkbox"/>
	4	CHENG, Y., et al., "Ultrathin Polypeptide Multilayer Films for the Fabrication of Model Liquid/Liquid Electrochemical Interfaces," J. Phys. Chem. B, 1999, Pages 8726-8731, Volume 103, Number 41	<input type="checkbox"/>
	5	DAI, J., et al., "Controlling the Permeability of Multilayered Polyelectrolyte Films Through Derivatization, Cross-Linking, and Hydrolysis," Langmuir, 2001, Pages 931-937, Volume 17, Number 3	<input type="checkbox"/>
	6	DECHER, G., "Fuzzy Nanoassemblies: Toward Layered Polymeric Multicomposites," Science, August 29, 1997, Pages 1232-1237, Volume 277	<input type="checkbox"/>
	7	DECHER, G., "Polyelectrolyte Multilayers, An Overview," Chapter 1, Multilayer Thin Films, 2002, Pages 1-46	<input type="checkbox"/>
	8	DELONGCHAMP, D. M., et al., "Fast Ion Conduction in Layer-by-Layer Polymer Films," Chem. Mater., 2003, Pages 1165-1173, Volume 15, Number 5	<input type="checkbox"/>
	9	DEYOUNG, J. P., et al., "Synthesis of Fluoropolymers in Liquid and Supercritical Carbon Dioxide Solvent Systems," Chapter 13, Fluoropolymers 1 Synthesis, 1999, Pages 191-205	<input type="checkbox"/>
	10	DURSTOCK, M. F., et al., "Dielectric Properties of Polyelectrolyte Multilayers," Langmuir, 2001, Pages 7865-7872, Volume 17, Number 25	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10594185
Filing Date	2006-09-25
First Named Inventor	Joseph B. Schlenoff
Art Unit	
Examiner Name	
Attorney Docket Number	FSU 70008.3

11	FRIEND, R. H., et al., "Electroluminescence in Conjugated Polymers," Chapter 29, Handbook of Conducting Polymers, 1998, Pages 823-845	<input type="checkbox"/>
12	GOOD, R. J., "Contact Angle, Wetting, and Adhesion: A Critical Review," J. Adhesion Sci. Technol., 1992, Pages 1269-1302, Volume 6, Number 12	<input type="checkbox"/>
13	THOMPSETT, D., "Catalysts for the Proton Exchange Membrane Fuel Cell," Chapter 6, Fuel Cell Technology Handbook, 1989, Pages 6-1 - 6-23	<input type="checkbox"/>
14	HSIEH, M. C., et al., "Surface "Priming" for Layer-by-Layer Deposition: Polyelectrolyte Multilayer Formation on Allylamine Plasma-Modified Poly(tetrafluoroethylene)," Macromolecules, 1997, Pages 8453-8458, Volume 30, Number 26	<input type="checkbox"/>
15	HYDE, F. W., et al., "Comparison of Fluorinated Polymers Against Stainless Steel, Glass and Polypropylene in Microbial Biofilm Adherence and Removal," Journal of Industrial Microbiology and Biotechnology, July 15, 1997, Pages 142-149, Volume 19	<input type="checkbox"/>
16	ILER, R.K., "Multilayers of Colloidal Particles," Journal of Colloid and Interface Science, 1966, Pages 569-594, Volume 21	<input type="checkbox"/>
17	JISR, R. M., et al., "Hydrophobic and Ultrahydrophobic Multilayer Thin Films from Perfluorinated Polyelectrolytes," Angew. Chem. Int. Ed., 2005, Pages 782-785, Volume 44	<input type="checkbox"/>
18	KOZLOVSKAYA, V., et al., "Hydrogen-Bonded Polymer Capsules Formed by Layer-by-Layer Self-Assembly," Macromolecules, 2003, Pages 8590-8592, Volume 36, Number 23	<input type="checkbox"/>
19	LOSCHE, M., et al., "Detailed Structure of Molecularly Thin Polyelectrolyte Multilayer Films on Solid Substrates as Revealed by Neutron Reflectometry," Macromolecules, 1998, Pages 8893-8906, Volume 31, Number 25	<input type="checkbox"/>
20	MAMEDOV, A. A., et al., "Free-Standing Layer-by-Layer Assembled Films of Magnetite Nanoparticles," Langmuir, 2000, Pages 5530-5533, Volume 16, Number 13	<input type="checkbox"/>
21	MICHAELS, A. S., "Polyelectrolyte Complexes," Industrial and Engineering Chemistry, October 1965, Pages 32-40, Volume 57, Number 10	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		10594185
Filing Date		2006-09-25
First Named Inventor	Joseph B. Schlenoff	
Art Unit		
Examiner Name		
Attorney Docket Number	FSU 70008.3	

22	ONER, D., et al., "Ultrahydrophobic Surfaces. Effects of Topography Length Scales on Wettability," Langmuir, 2000, Pages 7777-7782, Volume 16, Number 20	<input type="checkbox"/>
23	PARK, J., et al., "Stamping of Fluorinated Copolymers for Microfluidic Applications," Polymer Preprints, 2003, Pages 1-2, Volume 44, Number 1	<input type="checkbox"/>
24	ROSIDIAN, A., et al., "Ionic Self-Assembly of Ultrahard ZrO ₂ /Polymer Nanocomposite Thin Films," Advanced Materials, 1998, Pages 1087-1091, Volume 10, Number 14	<input type="checkbox"/>
25	SALLOUM D. S., et al., "Vascular Smooth Muscle Cells on Polyelectrolyte Multilayers: Hydrophobicity-Directed Adhesion and Growth," Biomacromolecules, 2005, Pages 161-167, Volume 6, Number 1	<input type="checkbox"/>
26	SCHLENOFF, J. B., et al., "Sprayed Polyelectrolyte Multilayers," Langmuir, 2000, Pages 9968-9969, Volume 16, Number 26	<input type="checkbox"/>
27	THOMPSETT, D., "Catalysts for the Proton Exchange Membrane Fuel Cell," Chapter 6, Fuel Cell Technology Handbook, 1989, Pages 6-1 - 6-23	<input type="checkbox"/>
28	YANG, B., et al., "Multilayered Membranes with Suppressed Fuel Crossover for Direct Methanol Fuel Cells," Electrochemistry Communications 6, 2004, Pages 231-236	<input type="checkbox"/>
29	YOO, D., et al., "Controlling Bilayer Composition and Surface Wettability of Sequentially Absorbed Multilayers of Weak Polyelectrolytes," Macromolecules, 1998, Pages 4309-4318, Volume 31, Number 13	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10594185
Filing Date	2006-09-25
First Named Inventor	Joseph B. Schlenoff
Art Unit	
Examiner Name	
Attorney Docket Number	FSU 70008.3

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ None

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/ Edward J. Hejlek /	Date (YYYY-MM-DD)	2007-02-23
Name/Print	Edward J. Hejlek	Registration Number	31,525

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.